

## **REMARKS**

Claims 1-14, 17, 20-50, and 62-71 are pending and stand rejected. New claims 72-73 are added herein. Support for the new claims is found throughout the specification, including at paragraphs 64 and 150.

### **35 U.S.C. § 103 Rejections**

Claims 1-2, 17, 27, 36-41, 49-50, 63-65, and 67-71 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Beringer et al. (Pub. No. US 2004/0205765 A1) in view of Kasi et al. (Pat. No. US 7,340,508 B1). Claims 3-9 and 35 stand rejected under § 103(a) as being unpatentable over Beringer in view of Kasi and Saga Software, Inc. (WO 00/29924). Claims 20-26, 28-34, 42-48, 62, and 66 stand rejected under § 103(a) as being unpatentable over Beringer in view of Kasi and Thilmany et al. (BizTalk®: Implement Design Patterns for Business Rules with Orchestration Designer, Oct. 2001, MSDN® Magazine). Claims 10-12 and 14 stand rejected under § 103(a) as being unpatentable over Beringer in view of Kasi and Moore et al. (Pub. No. US 2004/0034848 A1). Claim 13 stands rejected under § 103(a) as being unpatentable over Beringer in view of Kasi, Moore and further in view of Lee et al. (The Extensible Rule Markup Language, May 2003, ACM). Applicants respectfully traverse these rejections and discuss them together for clarity.

Claim 1 recites a method of creating an application for executing on at least one machine having a memory. The method comprises creating a definition of a node and a specification, both of which are held in at least one machine readable data file and written in a markup language. The claim recites that the specification is arranged to be processed by a run time environment and defines:

- i: how the at least one node interacts with other nodes during the processing of the specification;
- ii: resources useable by the at least one node during the processing of the specification;
- iii: at least one set of predetermined rules used by the at least one node during the processing of the specification; and
- iv: a set of messages which are arranged to be passed between nodes during the processing of the specification.

Beringer does not disclose these four aspects.

Referring to the description of Web Services Description Language (WSDL) at <http://www.w3.org/TR/2007/REC-wsdl20-20070626/>, it can be seen in the Introduction that WSDL 2.0 provides a model and an XML format for describing Web services. WSDL 2.0 enables one to separate the description of the abstract functionality offered by a service from concrete details of a service description such as “how” and “where” that functionality is offered. “This specification defines a language for describing the abstract functionality of a service as well as a framework for describing the concrete details of a service description. It also defines the conformance criteria for documents in this language.”

Thus, WSDL is a format that defines the capabilities/requirements of the document receiver. It does not provide any information about the document sender, or indeed any other node that the receiver node could interact with and exchange further messages. This relationship is clearly reinforced by Figure 1 of Beringer which shows the WSDL document 18 as being an intermediate of the Service Provider 12 and the Service Requestor 14; it is published by the Service Provider 12 in order that Service Requestors 14 that wish to communicate with it can do so. Figure 1 also shows that the Service Provider 12 has a Schema 34 therewithin, which (referring to paragraph 18 of Beringer) “defines or specifies the messaging features to be used in messages between the Service Provider and Service Requestor”. The Schema is a different document to the WSDL document.

The BizTalk Messaging Framework is a proprietary product provided by Microsoft.

Referring to <http://www.microsoft.com/biztalk/en/us/overview.aspx> is can be seen that:

BizTalk Server is Microsoft's Integration and connectivity server solution. A mature product on its sixth release, BizTalk Server 2009 provides a solution that allows organizations to more easily connect disparate systems. Including over 25 multi-platform adapters and a robust messaging infrastructure, BizTalk Server provides connectivity between core systems both inside and outside your organization. In addition to integration functionality, BizTalk also provides strong durable messaging, a rules engine, EDI connectivity, Business Activity Monitoring (BAM), RFID capabilities and IBM Host/Mainframe connectivity.

The Examiner refers to paragraph 4 of Beringer to show that Beringer teaches "the specification defining how the at least one node interacts with other nodes during processing of the specification" (Interaction Clause). The BizTalk Framework referenced in paragraph 4 is a Microsoft Standard and has nothing to do with either the Schema or the WSDL document shown in Figure 1 of Beringer.

Thus, Beringer does not show a specification indicating how one node interacts with other nodes. In support of the rejection of the Interaction Clause, the Examiner also makes reference to the Schema (first line of paragraph 18), which makes reference to the BizTalk Framework. Paragraph 18 of Beringer also refers to the Schema 34 as shown in Figure 1. As such it is referring to the capability of the Service Provider.

In addition, WSDL makes a definition about the Service Provider 12. Therefore it specifies the possible message exchanges of the Service Provider (i.e. Node) with which other nodes must comply. This is NOT what claim 1 of the present application requires. The present claim recites that the specification specify how The Node (i.e. the Service Provider) interacts with other nodes during processing and thus limits what any one node that is defined can do. The Service Requestor of Beringer is not a Node within the sense of the current application.

In support of the rejection of “The specification defining resources useable by the at least one node during processing of the specification” (Resources Clause) the Examiner relies upon paragraphs 26 and 34 of Beringer which relate to the WSDL document 18. This is not the BizTalk Framework that the Examiner used to show the Interaction Clause. Thus, already the Examiner is using two distinct aspects of Beringer (i.e. the Schema - which references an external Framework and the WSDL document) to show what is required to be within a single specification by the current claim. The distinctness of these two aspects of Beringer is highlighted by Beringer’s Figure 1 which shows them as being separated and it will be apparent from the discussion above about WSDL that the function of the WSDL document is in no way related to the Schema. Paragraph 26 of Beringer which the Examiner uses to show the Resources Clause again refers to the schema 34 of Figure 1. Again therefore, this paragraph refers to the capability of the Service Provider.

Further, Beringer fails to disclose a ‘Specification that defines at least one set of predetermined rules used by the at least one node during the processing of the specification’ (Rules Clause). Paragraphs 41 and 42 show extracts of the WSDL document and the Examiner is apparently referring to the portion of code: “<xsd:documentation>Provides a rule on how to construct the string for the topic field using XSL </xsd:documentation>” to teach the Rules Clause. Again, the WSDL document is not the Schema and not the BizTalk framework on which the Examiner initially relied. Instead, this phrase is part of the data structure <xsd:complexType name = “topicRuleType”> and as such defines a data structure for a specific data field expected to be received in a message. It does not define a set of rules which are later used to process data when implemented in the run time environment. The Examiner has cherry picked the phrase

‘rule’ with no indication of the requirement of the later parts of the claim which further define that rule.

Even if the Examiner’s arguments could be accepted, it is noted that the resultant rule would make a call to an XSL transformation. This XSL transformation is a further document outside of the specification. As a result Beringer teaches to use a Schema, a WSDL definition, a BizTalk framework and to call XSL transformations. This is not processing of the **specification** in a run time environment to provide a memory resident node which processes data by the at least one memory resident node as is claimed.

Paragraph 41 of Beringer which the Examiner uses to teach the Rules Clause relates to the capabilities of the Service Provider since it is discussing the Schema 34. Hence, it does not disclose or suggest the Rules Clause in the manner claimed.

There is a fourth requirement of the specification - that it defines “a set of messages which are arranged to be passed between nodes” (Messages Clause). Paragraph 17 of Beringer which the Examiner uses to teach the Messages Clause relates to the capabilities of the Service Requestor since it relates to the WSDL document.

Thus, the four clauses of Beringer on which the Examiner relies not only do not show a specification that provides all of the definitions but they do not together specify a node; three of the references relate to one of the nodes of Beringer whereas the fourth reference relates to the other node. The nodes in Beringer have a different functionality and as such, the Examiner will appreciate that the definition of the required node is not met.

From the above, it is clear that the Examiner has failed to show Beringer has a single specification containing the four clauses (Interaction, Resources, Rules and Messages) which can later be processed to provide the functionality of the application. Instead, the Examiner has relied

upon two documents (the Schema and WSDL documents together with the BizTalk framework) to highlight features which are different from those required by the present claim. Thus, a combination of Beringer and Kasi does not show all of the features required by the claim and as such cannot render the claim obvious.

There are also further limitations to the Examiner's analysis. In particular, the Examiner has split the clause "process, according to rules defined in the specification for that node data provided to the at least one memory resident node by messages such that rules are triggered if predetermined data is present within a message" in two rather than reading it together and subsequently cherry picked disparate features from Beringer to show two different clauses compared to what should be unified teaching.

The Examiner takes the first portion "process, according to rules defined in the specification for that node" and argues that paragraph 19 of Beringer teaches this because it can determine whether messages comply with the WSDL interface. That is the Examiner is arguing that processing of a message to determine whether it complies with a WSDL interface teaches what is claimed.

The Examiner then takes the second portion "data provided to the at least one memory resident node by messages such that rules are triggered if predetermined data is present within a message" and argues that the INVOKE process as shown in Figure 1 teaches this aspect. The Examiner then refers to paragraph 52 which relates to a Schema and NOT the WSDL document or the BizTalk Framework to which he has previously referred. Paragraph 76 on which the Examiner also relies discusses that messages must comply with a format as specified in the rules. Paragraph 76 in no way suggests rules which are triggered if predetermined data is present within a message; Beringer discloses parsing the message format and does not disclose

processing the message contents. It is the processing of data by performing business logic and arithmetic contained within the message that is significant and not simply processing of the message to determine whether it is in the correct format.

Thus, even though the Examiner has tried to change the meaning of the clause by splitting it inappropriately, the Examiner has still failed to show the Beringer processes data according to a set of rules which have previously been provided in a specification. The Examiner in fact relied on rules which are defined in disparate portions of Beringer and which format messages rather than process them.

Further, the Examiner relies upon paragraph 80 of Beringer to teach the clause of the current claim “output further messages dependent upon triggering of rules”. It is not clear how the phrase “An attachment extension in accordance with schema 46 may be specified in predefined locations in the WSDL document” can teach outputting of a further message upon triggering of a rule.

Finally, the Examiner fails to point out where the clause “wherein links between nodes are dynamically configured responsive to amendments to the specification during processing thereof by the run time environment” is found in either Beringer or Kasi. Thus, the rejection of claim 1 is prima facie deficient. Even if this last clause were found in the references, a person of ordinary skill in the art at the time the invention was made would not find the claimed invention obvious for the reasons provided above.

Referring to claim 11, the Examiner believes that this is obvious in view of a combination of Beringer, Kasi and Moore. At best Beringer teaches a skilled person that rules can be used to ensure that messages follow a predetermined format as specified in a schema. What Beringer does not teach (and what is discussed at length above) is to process data within a message

according to a rule; i.e. the format of the rule does not matter but it is the data within the message that is important. This is a fundamental shift and as such it would not be obvious to a skilled person to restructure Beringer in order to replace the schema with the rule engine of Moore. As such, Applicants submit that claim 11 is not obvious in view of the combination of references.

The other independent claims are not obvious for at least the same reasons as claim 1. In addition, the other references cited by the Examiner do not remedy the deficiencies of Beringer described above, nor does the Examiner allege that they do. Therefore, Applicants request that the Examiner withdraw the rejections.

### **CONCLUSION**

Applicants respectfully submit that the pending claims are patentable over the cited art and request that the Examiner withdraw the rejections and allow the claims. The Examiner is invited to contact the undersigned to advance the prosecution of this case.

Respectfully submitted,

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